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**WE CLAIM:**

1. A method of detecting cancer in a patient comprising:
  - (a) determining the level of podocalyxin and/or endoglycan in a sample from the patient; and
  - 5 (b) comparing the level of podocalyxin and/or endoglycan in the sample to a control sample, wherein increased levels of podocalyxin and/or decreased levels of endoglycan as compared to the control indicates that the patient has cancer.
- 10 2. A method of detecting cancer in a patient according to claim 1 wherein the levels of podocalyxin are determined.
3. A method of detecting cancer in a patient according to claim 1 wherein the levels of endoglycan are determined.
- 15 4. A method of detecting cancer in a patient according to claim 1 comprising:
  - (a) determining the level of endoglycan and podocalyxin in a sample from the patient; and
  - 20 (b) comparing the ratio of endoglycan to podocalyxin in the sample to a control sample, wherein a decreased ratio as compared to the control indicates that the patient has cancer.
5. A method according to any one of claims 1-4 wherein the cancer is  
25 breast cancer.
6. A method according to any one of claims 1-5 wherein determining the level in step (a) comprises determining the amount of nucleic acid molecules.
- 30 7. A method according to claim 6 wherein the nucleic acid molecules are mRNA.

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8. A method according to any one of claims 1-5 wherein determining the level in step (a) comprises determining the amount of protein.
9. A method according to claim 8 wherein an antibody is used to  
5 determine the levels of the protein.
10. A method of monitoring the progression of cancer in a patient comprising:
- (a) determining the level of podocalyxin and/or endoglycan in a  
10 sample from the patient;
- (b) repeating step (a) at a later point in time and comparing the result of step (a) with the result of step (b) wherein a difference in the level of podocalyxin and/or endoglycan is indicative of the progression of the cancer in the patient.
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11. A method of monitoring the progression of cancer in a patient according to claim 10 comprising:
- (a) determining the level of endoglycan and podocalyxin in a sample from the patient; and
- 20 (b) repeating step (a) at a later point in time and comparing the result of step (a) with the result of step (b) wherein a difference in the ratio of endoglycan to podocalyxin is indicative of the progression of the cancer in the patient.
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12. A method of determining whether or not a cancer is metastatic in a patient comprising:
- (a) detecting the level of podocalyxin and/or endoglycan in a sample from the patient; and
- (b) comparing the level of podocalyxin and/or decreased levels of  
30 endoglycan in the sample to a control sample, wherein an increased level of podocalyxin and/or decreased levels of endoglycan as compared to the control indicates that the cancer is metastatic.

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13. A method of determining whether or not a cancer is metastatic according to claim 12 in a patient comprising:

5 (a) detecting the level of endoglycan and podocalyxin in a sample from the patient; and

(b) comparing the ratio of endoglycan to podocalyxin in the sample to a control sample, wherein a decreased ratio of endoglycan to podocalyxin as compared to the control indicates that the cancer is metastatic.

10 14. A kit for detecting cancer in a patient comprising (i) reagents for conducting a method according to any one of claims 1-13 and (ii) instructions for its use.

15 15. A kit according to claim 14 wherein the reagents comprise nucleic acid primers for amplifying mRNA coding for at least one of endoglycan and podocalyxin in a reverse transcriptase polymerase chain reaction.

20 16. A kit according to claim 14 wherein the reagents comprise antibodies specific to at least one of endoglycan protein and podocalyxin protein.

17. A use of an effective amount of an agent that modulates podocalyxin or endoglycan in the manufacture of a medicament for modulating cancer cell growth.

25 18. A use of an effective amount of podocalyxin antagonist in the manufacture of a medicament for inhibiting cancer cell growth or treating cancer.

30 19. A use according to claim 18 wherein the podocalyxin antagonist is an antisense oligonucleotide.

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20. A use according to claim 18 wherein the podocalyxin antagonist is an antibody that binds podocalyxin.
21. A use of an effective amount of endoglycan agonist in the manufacture  
5 of a medicament for inhibiting cancer cell growth or treating cancer.
22. A use according to claim 21 wherein the endoglycan agonist is a nucleic acid encoding endoglycan or a fragment thereof.
- 10 23. A use according to anyone of claims 17-22 wherein the cancer is breast cancer.
24. A method for identifying a compound that modulates podocalyxin comprising:
- 15 (a) incubating a test compound with podocalyxin or a nucleic acid encoding podocalyxin; and
- (b) determining the effect of the compound on podocalyxin activity or expression and comparing with a control, wherein a change in the podocalyxin activity or expression as compared to the control indicates that  
20 the test compound modulates podocalyxin.
25. A method for identifying a compound that modulates endoglycan comprising:
- (a) incubating a test compound with endoglycan or a nucleic acid  
25 encoding endoglycan; and
- (b) determining the effect of the compound on endoglycan activity or expression and comparing with a control, wherein a change in the endoglycan activity or expression as compared to the control indicates that the test compound modulates endoglycan.
- 30 26. A screening assay for identifying an antagonist of podocalyxin comprising the steps of:

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- (a) incubating a test substance with podocalyxin; and
- (b) determining whether or not the test substance inhibits podocalyxin activity, function or expression levels.

5 27. A screening assay for identifying an agonist of endoglycan comprising the steps of:

- (a) incubating a test substance with endoglycan; and
- (b) determining whether or not the test substance activates endoglycan activity, function or expression levels.

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28. A pharmaceutical composition for use in modulating cancer cell growth comprising an effective amount of a podocalyxin modulator in admixture with a suitable diluent or carrier.

15 29. A pharmaceutical composition for use in treating cancer comprising an effective amount of a podocalyxin antagonist in admixture with a suitable diluent or carrier.

30. A pharmaceutical composition for use in modulating cancer cell growth  
20 comprising an effective amount of an endoglycan modulator in admixture with a suitable diluent or carrier.

31. A pharmaceutical composition for use in treating cancer comprising an effective amount of an endoglycan agonist in admixture with a suitable diluent  
25 or carrier.

32. A pharmaceutical composition for use in modulating cancer cell growth comprising an effective amount of an endoglycan modulator and a podocalyxin modulator in admixture with a suitable diluent or carrier.

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33. A pharmaceutical composition for use in treating cancer comprising an effective amount of an endoglycan agonist and a podocalyxin antagonist in admixture with a suitable diluent or carrier.